IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION

NADER ASGHARI-KAMRANI and
KAMRAN ASGHARI-KAMRANI

Plaintiffs,

v. **CIVIL NO. 2:15cv478**

UNITED SERVICES AUTOMOBILE ASSOCIATION

Defendant.

OPINION AND ORDER

This is a suit for patent infringement under 35 U.S.C. § 271. Second Am. Compl. ¶ 1, ECF No. 70. Plaintiffs Nader Asghari-Kamrani and Kamran Asghari-Kamrani ("Plaintiffs") have alleged that the United Services Automobile Association ("USAA" or "Defendant") has infringed several claims of United States Patent No. 8,266,432 ("the '432 patent"). Id. USAA has filed a Motion to Dismiss Plaintiffs' Second Amended Complaint. ECF No. 86. For the reasons set forth below, the Court **GRANTS** the Motion to Dismiss, ECF No. 86, and **DISMISSES WITH PREJUDICE** Plaintiffs' Second Amended Complaint, ECF No. 70. The Court also **DISMISSES AS MOOT** USAA's Counterclaims. ECF No. 88.

I. BACKGROUND

A. PROCEDURAL HISTORY

On October 30, 2015, Plaintiffs filed their initial complaint for patent infringement pursuant to 35 U.S.C. § 271. Compl., ECF No. 1. On December 1, 2015, USAA filed a Motion to Dismiss for Failure to State a Claim. ECF No. 15. Before the Court heard argument on this Motion, Plaintiffs filed an Amended Complaint on December 21, 2015. ECF 19. USAA then

filed a Motion to Dismiss for Failure to State a Claim on January 7, 2016. ECF No. 20. The Court granted this motion on the grounds that Plaintiffs had failed to plead with sufficient particularity. Order, ECF No. 60. The Court granted Plaintiffs leave to amend. Id. On April 12, 2016, Plaintiffs filed a Second Amended Complaint. ECF No. 70. On April 28, 2016, USAA filed the instant Motion to Dismiss. ECF No. 86. On May 12, 2016, Plaintiffs filed their Opposition to the Motion to Dismiss. ECF No. 101. On May 18, 2016, USAA filed its Reply. ECF No. 111. A hearing on the instant motion was held on June 27, 2016. ECF No. 137.

USAA moves for dismissal pursuant to Federal Rule of Civil Procedure 12(b) on two grounds: (1) because the claims of the '432 patent are directed to an abstract idea and are thus ineligible for patent protection; and (2) because the Second Amended Complaint fails to identify with sufficient particularity how USAA infringes the patent. USAA's Mem. in Supp. of its Mot. to Dismiss ("USAA's Mem."), ECF No. 87 at 1. Because the Court holds that the patent is directed to patent-ineligible subject matter, it does not reach USAA's second contention.

B. PATENT-IN-SUIT

Plaintiffs allege that USAA infringes "at least claims 1-10, 12, 13, 16-26, 28-35, 38-42, 45, 47, 48, 50-52, 54, and 55" of the '432 patent. Second Am. Compl. ¶ 1. According to the Summary of the Invention, "[t]he invention relates to a system and method provided by a Central-Entity for centralized identification and authentication of users and their transactions to increase security in e-commerce." '432 patent 2:52–55, ECF No. 70-1, Ex. A. The patent identifies three entities that perform the patent's methods: (1) a "Central-Entity" which "centralizes user's personal and financial information in a secure environment in order to prevent the distribution of the user's information in e-commerce;" (2) a "user" which "represents both a typical person consuming goods and services as well as a business consuming goods and services, who needs to be identified in order to make online purchases or gain access to restricted

web sites;" and (3) an "External-Entity" which "is any party offering goods or services in e-commerce and needs to authenticate the users based on digital identity." '432 patent at Summary of Invention, 2:56–3:6.

Initially, the user signs-up at the Central-Entity and provides his or her "personal or financial information." Id. at 3:7–8. The Central-Entity gives the user a UserName and Password that he or she will utilize when interacting with the Central-Entity. Id. at 3:8–13. When requested by the user, the Central-Entity also gives the user a SecureCode, which is "dynamic, non-predictable and time-dependent." Id. at 3:13–16. The user may then provide his or her UserName and SecureCode to the External-Entity. Id. at 3:19–21. The External-Entity then sends the UserName and SecureCode to the Central-Entity, which will validate the information and confirm the identity of the user and inform the External-Entity of the result. Id. at 3:21–26.

This process is described in Claim 1 of the patent, which is representative:

> A method for authenticating a user during an electronic transaction between the user and an external-entity, the method comprising:
>
> receiving electronically a request for a dynamic code for the user by a computer associated with a central-entity during the transaction between the user and the external-entity;
>
> generating by the central-entity during the transaction a dynamic code for the user in response to the request, wherein the dynamic code is valid for a predefined time and becomes invalid after being used;
>
> providing by the computer associated with the central-entity said generated dynamic code to the user during the transaction;
>
> receiving electronically by the central-entity a request for authenticating the user from a computer associated with the external-entity based on a user-specific information and the dynamic code as a digital identity included in the request which said dynamic code was received by the user during the transaction and was provided to the external-entity by the user during the transaction; and

> authenticating by the central-entity the user and providing a result of the authenticating to the external-entity during the transaction if the digital identity is valid.

The dependent claims build on this basic framework. Independent Claim 25 is an apparatus claim version of Claim 1. Claim 25 requires that two computers perform the functions of the Central-Entity—one to generate a dynamic code and a second to validate it. Independent Claim 48 is another method claim very similar to Claim 1. It requires an alphanumeric dynamic code. Independent Claim 52 is an apparatus claim version of Claim 48 and again uses two computers to perform the functions of the Central-Entity. All independent and dependent claims of the patent require a Central-Entity, a user, and an External-Entity. See '432 patent, Claims 1–55. All claims also require the use of a dynamic code. Id.

II. LEGAL PRINCIPLES

Section 101 of the Patent Act defines the subject matter eligible for patent protection. It provides:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. The Supreme Court has long recognized an implicit exception to this provision and held that three categories of subject matter are not eligible for patent protection: laws of nature, natural phenomena, and abstract ideas. Alice Corp. Pty. v. CLS Bank Int'l, 134 S.Ct. 2347, 2354 (2014). In Mayo Collaborative Services v. Prometheus Laboratories, Inc., 132 S.Ct. 1289 (2012), the Supreme Court set forth a two-part framework for distinguishing patents that claim one of these patent-ineligible concepts from those that claim patent-eligible applications of these concepts. Alice, 134 S.Ct. at 2355. In the first step, a court determines whether the claims at issue are directed to a patent-ineligible concept. Id. (citing Mayo, 132 S.Ct. at 1286–97). If so, in the second step, a court must consider "what else" is in the claims that may justify patent

protection. Id. (quoting Mayo, 132 S.Ct. at 1297). A court must "consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application." Id. (internal quotations omitted) (quoting Mayo, 132 S.Ct. at 1298, 1297). This second step is a search for an "inventive concept" that ensures that the patent claims amount to "significantly more" than claims upon an ineligible concept. Id. (quoting Mayo, 132 S.Ct. at 1294).

Patentability under section 101 is an issue of law that may be resolved on a Rule 12(b)(6) motion to dismiss. Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1349 (Fed. Cir. 2014). Claim construction is not necessary to dismiss patent claims at the pleading stage if the construction advocated by the patent holder would not make the claims eligible for patent protection. Id. In determining patent eligibility a court does not need to address each individual claim if the court can identify a representative claim and "all claims are substantially similar and linked to the same abstract idea." Id. at 1348 (internal quotation omitted).

III. ANALYSIS

A. MAYO/ALICE STEP ONE

In Alice, the leading Supreme Court case holding that patent claims were invalid because directed to an abstract idea, the Supreme Court declined "to delimit the precise contours of the 'abstract ideas' category." See 132 S.Ct. at 2357. Recognizing that "precision has been elusive in defining an all-purpose boundary between the abstract and the concrete," Internet Patents Corp. v. Active Network, Inc., 790 F.3d 1343, 1345 (Fed. Cir. 2015), the Federal Circuit has looked to "some important principles" laid down by the Supreme Court in recent cases to decide what is an abstract idea. Content Extraction, 776 F.3d at 1256. For instance, the Supreme Court has held that fundamental economic and longstanding commercial practices are "methods of organizing

human activity" that are "within the realm of 'abstract ideas'" as the term is used in section 101 analysis. Alice, 134 S.Ct. at 2356–57. The Supreme Court and Federal Circuit have also compared the claims under review to those found to be directed to an abstract idea in prior cases. Id. at 2355–57 (comparing the claims at issue to those in Bilski v. Kappos, 561 U.S. 593 (2010)); Enfish, LLC v. Microsoft Corp., No. 2015-1244, 2016 WL 2756255, at *4 (Fed. Cir. May 12, 2016) (identifying this comparative approach).

There have been somewhat contradictory points of emphasis in the opinions of the Supreme Court and Federal Circuit that address what constitutes an abstract idea. In the few cases that the Supreme Court has chosen to take it has consistently found that the patent claims were directed to an abstract idea. See, e.g., Alice, 134 S.Ct. at 2356 (finding the concept of intermediate settlement to be patent ineligible); Bilski, 561 U.S. at 611 (same for the "fundamental economic practice" of hedging). By contrast, the Federal Circuit has cautioned that the "first step of the [Mayo/Alice] inquiry is a meaningful one, . . . a substantial class of claims are not directed to a patent-ineligible concept." Enfish, 2016 WL 2756255, at *4. Additionally, the Federal Circuit—with support from language in Alice—has warned that describing claims at "a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 shallow the rule." Id. at *6; see also Alice, 134 S.Ct. at 2354 ("[W]e tread carefully in construing this exclusionary principle [concerning laws of nature, natural phenomena, and abstract ideas] lest it shallow all of patent law.").

Critically for the present case, the Federal Circuit has added a new inquiry to step one of the Mayo/Alice analysis when the claims involve computer-related technology. The goal of this inquiry is to distinguish between claims that "merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the

Internet" and those that are "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1257 (Fed. Cir. 2014). The patent claims in Alice were of the first variety: the claims at issue related to a computerized scheme for mitigating settlement risk by means of a third party, a concept the Supreme Court found to be a standard business practice predating the use of computers. See Alice, 134 S.Ct. at 2352, 2356. Although the Supreme Court considered the significance of computerization in performing the second step of the Mayo/Alice analysis, computerization did not factor into the Supreme Court's analysis of the first step. Compare id. at 2355–57 and id. at 2357–60. However, the Federal Circuit has begun to ask "whether the claims are directed to an improvement to computer technology versus being directed to an abstract idea, even at the first step of the Alice analysis." Enfish, 2016 WL 2756255, at *4. Claims that are directed to an improvement to computer technology are not directed to an abstract idea. Id. at *8.

All of the claims in the '432 patent require the use of a computer. Claim 1 of the patent, which is representative, claims a "method for authenticating a user during an electronic transaction." However, despite the electronic setting and purportedly Internet specific problem addressed, the patent claims are directed to a common method for solving an old problem. The claims are directed to the abstract idea of using a third party and a random, time-sensitive code to confirm the identity of a participant to a transaction. This formulation is admittedly verbose. It is verbose because the patent claims combine two abstract ideas: the use of a third party intermediary to confirm the identity of a participant to a transaction and the use of a temporary code to confirm the identity of a participant to a transaction. It is an obvious combination, and nothing about the combination removes the patent claims from the realm of the abstract.

Nothing about the concept behind the patent claims depends upon their implementation by computers. As USAA points out, the concept could easily be performed either by hand or, more simply, with technologies much older than computers. See USAA's Mem. at 17–18. To adapt USAA's example, let's say that a company (the user, in the terms of the patent) wants to buy a new chair. A local retailer (the External-Entity) will sell goods on credit to anyone who has an account at a local bank (the Central-Entity). By previous arrangement, when the company needs something from the retailer an employee will go to the manager of the bank. The manager will, using a set of dice containing both letters and numbers, generate a random code. The manager writes down this code as well as an expiration time for the code and gives it to the employee. The employee then goes to the retailer. The retailer calls the bank manager and confirms that the code is correct and still valid. The code confirmed, the retailer knows that the individual is an employee of a company that has an account at the bank. The retailer gives the employee a chair.

If this seems a rather involved way to purchase a chair, imagine instead that an intelligence service has a source within a foreign country. Periodically the source (the External-Entity) conveys a packet of information to a courier (the user) sent by the intelligence service. Although the same courier is never used twice, it is important that the source confirm the identity of the courier. By previous arrangement, whenever a courier goes to pick up the packet the courier first visits the source's handler (the Central-Entity), who works at an embassy in the foreign country. The handler gives the courier a time sensitive code. The courier then goes to the source and tells the source the code. The source relays the code back to the handler who confirms its validity and thus the identity of the courier. The packet is then handed over.

A comparison with the claims at issue in Alice is instructive. The claims in Alice related

to a "computerized scheme for mitigating 'settlement risk'—i.e., the risk that only one party to an agreed-upon financial exchange will satisfy its obligation." 134 S.Ct. at 2352. The patent claims were drawn to an old solution to this problem, "intermediated settlement, i.e., the use of a third party to mitigate settlement risk." Id. at 2356. Like the claims in this case, intermediate settlement could and had been performed without computers. The Supreme Court in Alice had no trouble concluding that intermediated settlement was longstanding "method of organizing human activity." Id. The fact that the patent claims used a computer to perform part of this method was of no consequence.

The claims in the '432 patent are not like those considered in the recent Federal Circuit cases that have held that the patent claims under review were not directed to an abstract idea because they were directed to an improvement in computer technology. In DDR Holdings the patent claims were directed to "systems and methods of generating a composite webpage that combines certain visual elements of a 'host' website with content of a third party merchant." 773 F.3d at 1248. The purpose of this system is to prevent the loss of web traffic that occurs when visitors to a "host" website click an advertisement on the website. Id. In the patented system, when visitors click an advertisement on a "host" webpage, rather than being directed away from the "host" website and to the advertiser's website, the visitors are directed to a hybrid website that maintains the "look and feel" of the "host" website. Id. at 1248–49. It is an Internet-based solution to an Internet-specific problem. Id. at 1257. In Enfish, the patent claims described "an innovative logical model for a computer database" that used a single "self-referential" table to store data. 2016 WL 2756255, at *1. The Federal Circuit held that the patent claims were "directed to a specific improvement to the way computers operate." Id. at *5.

Plaintiffs argue that the patent claims are directed to a "problem unique to computer-

network authentication" and could only be implemented by a computer system. Pls.' Opp'n to USAA's Mot. to Dismiss ("Pls.' Opp'n"), ECF No. 101 at 13–14. Certainly it is true that the problem of authenticating parties to a transaction has been magnified by computer and network technology. Through computer networks many individuals may conduct business over long distances in an instance. However, just because a problem has been magnified by computer and network technology does not make the problem unique to this environment. And just as computers magnify the scale of traditional problems such as authentication, they may also make it easier to perform traditional solutions to these traditional problems. It is true, as Plaintiffs argue, that there are advantages to performing the claimed method on computers. See Pls.' Opp'n at 14–19. However, these advantages do not transform the method into one directed to an improvement of computer technology. Again, a comparison with Alice, the leading Supreme Court case on this issue, is instructive. The risk that one party to a transaction will not follow through on its obligation is undoubtedly magnified for electronic transactions, and there are advantages to performing intermediated settlement using computer technology. This was not enough to save the claims in Alice.

The Federal Circuit itself has emphasized in a recent decision that limiting claims to a particular environment does not necessarily make the claims any less abstract. See In re TLI Commc'ns LLC Patent Litig., No. 2015-1372, 2016 WL 2865693, at *5 (Fed. Cir. May 17, 2016). In TLI Communications, the Federal Circuit considered claims that described a method for recording images with a phone, storing those images as digital images, transmitting the images and classification information collected by the phone to a server, and then sorting the images based on the classification information. See id. at *2 (discussing a representative claim). The Federal Circuit held that the claims were "simply directed to the abstract idea of classifying

and storing digital images in an organized manner." Id. at *5. Of course, digital camera technology, in allowing pictures to be taken and developed quickly, magnifies the problem of image classification. Fortunately computers and phones also make it easier to classify and sort images.

B. MAYO/ALICE STEP TWO

Having determined that the claims are directed to an abstract idea, in the second step of the Mayo/Alice analysis the Court must consider whether the elements of the claims both individually and as an ordered combination transform the nature of the claims into a patent-eligible application. This is a search for an "inventive concept." In Alice, the Supreme Court reiterated that "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." 134 S.Ct. at 2358. Were that the case, "any application could claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept. Id. at 2359.

The representative method claim in this case describes the following steps: (1) "receiving" electronically a request for a dynamic code for the user; (2) "generating" by the Central-Entity a dynamic code; (3) "providing" the generated dynamic code to the user; (4) "receiving" electronically by the Central-Entity a request for authenticating the user from a computer associated with the External-Entity; and (5) "authenticating" by the Central-Entity the user and providing the result to the External-Entity. '432 patent, Claim 1.

Taken individually, each of these claim elements describes conventional computer functions. The claim elements describe sending data electronically, generating a random code, and comparing two pieces of data to see if they are the same. As in Alice, "each step does no more than require a generic computer to perform generic computer functions." 134 S.Ct. at 2360.

Considered as an ordered combination, the claim elements do not add anything inventive

to the abstract concept underlying them. They simply instruct a generic computer or computers to verify the identity of a participant to a transaction using a randomly generated code. They do not "purport to improve the functioning of the computer itself." Id. "Nor do they effect an improvement in any other technology or technological field." Id. They have generic computers perform an old method of authentication. This is not enough to transform a patent-ineligible abstract idea into a patent-eligible invention. See id. at 2360.

Put simply, there is nothing inventive about Plaintiffs' patent claims. To allow Plaintiffs to patent a generic computer implementation of an abstract idea would allow Plaintiffs to monopolize the idea itself and inhibit further discovery and invention. See id. at 2354, 2359.

C. THE NEED FOR CLAIM CONSTRUCTION AND THE APPARATUS CLAIMS

Finally, the Court notes that while Plaintiffs recite the need for claim construction, they never identify how claim construction might change the meaning of the claims such that they would be eligible for patent protection. Additionally, although Plaintiffs fault USAA for focusing its analysis on Claim 1 of the '432 patent, they fail to specify how consideration of the other claims would add to the analysis. This is not to say that Plaintiffs have the burden to prove the validity of their patent. The point is simply that Plaintiffs' arguments on these points are empty. As described above, all of the claims are substantially similar to Claim 1. Independent method Claim 48 adds the limitation of an alphanumeric dynamic code. The two apparatus claims, Claims 25 and 51, simply use two computers to perform the functions of the Central-Entity. None of these additional limitations change the substance of the claims. See Alice, 134 S.Ct. at 2360 ("Put another way, the system claims are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea."). Similarly, construction of the claims would not affect the Court's analysis of whether the

claims are directed to an abstract idea. No matter what construction the Court adopts the substance of the claims is the same.

IV. CONCLUSION

For the above reasons, the Court holds that the claims of the '432 patent at issue are invalid because they are directed to an abstract idea and thus ineligible for patent protection under 35 U.S.C. § 101. Because the allegedly infringed patent claims are invalid, Plaintiffs fail to state a claim for relief. Accordingly, the Court **GRANTS** the Motion to Dismiss, ECF No. 86, and **DISMISSES** Plaintiffs' Second Amended Complaint **WITH PREJUDICE**, ECF No. 70. The Court also **DISMISSES AS MOOT** USAA's Counterclaims. ECF No. 88.

The Clerk is **DIRECTED** to forward a copy of this Order to all Counsel of Record.

IT IS SO ORDERED.

/s/
Robert G. Doumar
Senior United States District Judge
UNITED STATES DISTRICT JUDGE

Norfolk, VA
July 5, 2016